

Application Form for the Organization of an IUVSTA Workshop

TITLE OF THE WORKSHOP:

HiPIMS Today – Recent Development of High-Power Impulse Magnetron Sputtering

VENUE:

Online (only)

DATES (NB workshops should normally be 4-5 days in length):

Three half days, January 20-22, 2021. We believe a shorter meetings and shorter days are suitable for an online meeting due to several reasons. However, the understanding in this respect is limited, and we hope to gain experience.

PRINCIPAL THEMES/TOPICS:

Physics, engineering and application of HiPIMS with focus on recent developments.

Recent development of HiPIMS show that, in spite of the process being rather mature, there are much to gain in additional development. Over the last few years selective metal ion bombardment has been developed and show a great potential in deposition of complex thin films. More recently “bipolar-HiPIMS” have shown potential for ion bombardment even for films on insulating substrates and for insulating thin films. However, recent published results from different groups are conflicting and bringing scientists together now for discussions are timely.

IUVSTA SPONSORING DIVISIONS:

Surface Engineering Division – at this point we have discussed with Ivan Petrov who supports the idea to run this workshop under the IUVSTA umbrella.

NAMES AND NATIONALITIES OF ORGANIZERS (not more than 4, which must include at least one IUVSTA Divisional Committee member; please identify the Main Organiser and provide their full contact details):

Ulf Helmersson, Sweden, ulf.helmersson@liu.se,
Member of the Surface Engineering Division

Tetsuhide Shimizu, Japan, simizu-tetuhide@tmu.ac.jp

Daniel Lundin, Sweden, daniel.lundin@liu.se,
Member of the Plasma Science and Technique Division

NAMES AND NATIONALITIES OF LIKELY INVITED SPEAKERS:

We plan to have 18 invited speakers + contributing posters

		<i>Tentative title</i>
Vasili Tiron	Romania	Ion acceleration mechanisms in bipolar HiPIMS
Stéphanos Konstaninidis	Belgium	TiO ₂ from by dcMS thru HiPIMS to bipolar HiPIMS
Nikolay Britun	Belgium	Ion dynamics in bipolar HiPIMS
Tomas Kozak	Czech	Ion-energy distribution in bipolar HiPIMS
Zdenek Hubicka	Czech	Ion-flux analysis of HiPIMS processes
Jyh-Wei Lee	Taiwan	MF superimposed HiPIMS
Ken Yukimura	Japan	HiPIMS-like burst mode inductively coupled sputtering
Kerstin Bobzin	Germany	HiPIMS for cutting tools
Tomas Kubart	Sweden	Carbone coatings by HiPIMS
Grzegorz Greczynski	Sweden	Boride coatings by HiPIMS
Petr Vasina	Czech	Superhard nanocomposites by HiPIMS
Jon T Gudmundsson	Iceland	Optimization of HiPIMS thru modelling
Sedina Tsikata	France	Thomson scattering
James Bradley	UK	Thomson scattering (or emissive probe analysis?)
Ralf Bandorf	Germany	Reactive sputter control of HiPIMS
Alain Billard	France	Coatings in trenches using HiPIMS
P.K. Chu	Hong Kong	HiPIMS vs continuous high-power magnetron sputtering
A von Keudell	Germany	Instabilities in HiPIMS

About ¼ of the persons above have been contacted, and ALL think it is a great idea!

NAMES OF OTHER SPONSORS (actual and anticipated; include indication of known or anticipated level of financial contribution: IUVSTA must be advertised as the main sponsor):

Non

UNDERWRITING: Who will underwrite any financial loss? (If approved, IUVSTA will provide sponsorship to a predetermined maximum level and will not have any further financial responsibility)

PlasmAdvance AB (company controlled by Ulf Helmersson and Daniel Lundin)

Budget

It is difficult to make a budget for an online event at this point. We are testing different online platforms, a field that is moving forward rapidly, and the cost for the use of the platforms are unclear, so for now we estimate that we will have the following costs:

Website	€ 200
Technical support ¹	€ 1 500
Platform adaptation ²	€ 1 500

¹ We have engaged a person with experience in setting up different VR-meetings. He is involved in selecting and adopting the software platform.

² Funds available that might be needed, for example, for payment of platform use, special server use, etc.

If the cost (of the last point) is higher than the estimates, we plan to charge the participants or (better) charge exhibitors. The latter requires a platform that can handle a suitable exhibitor solution, something we are now looking into.

CHECKLIST FOR APPLICANTS

Organizers **must** undertake to fulfil the conditions below. Financial contributions from IUVSTA are conditional upon this undertaking.

I AGREE to -

- PROVIDE full information of event to the IUVSTA Scientific Secretary
- PROVIDE a budget, updated in the event of major changes, to the IUVSTA Scientific Secretary
- PROVIDE a dedicated Website for the event. Give url when known (this information must be passed to the Scientific Secretary before any IUVSTA funds will be released):
www.hipims.today
- Name and e-mail address of person who will maintain the site: Ulf Helmersson
- PROVIDE a report of the event after its completion for the IUVSTA web site
- Name and e-mail address of person who will provide this report: Ulf Helmersson
- AGREE to include IUVSTA name and logo on all event announcements
- AGREE to use IUVSTA numbering system (e.g. IUVSTA Workshop no NN) on all event announcements
- AGREE to give a short presentation on IUVSTA at the beginning of the event. (Suitable material may be downloaded from the IUVSTA web site <http://www.iuvsta.org>)
Depending on software platform selected – we plan to make a poster-space available for IUVSTA
- AGREE to distribute any IUVSTA material provided to the organizers Only links or electronic material will be distributed
- AGREE not to have a published Proceedings of the event
- AGREE to follow the Workshop Guidelines described in the IUVSTA Procedure Manual (downloadable from the IUVSTA web site: <http://www.iuvsta.org>) The Guidelines are not fully suitable for an online event, but we will follow it as much as is possible and give feedback to IUVSTA on suitable alterations of the guidelines for future online events.

I agree to fulfil all the points of the above checklist

Name: Ulf Helmersson

Date and Signature: September 29, 2020

~~Budget for the Workshop (2016.10.24-28)~~

TITLE: HiPIMS Today

VENUE: Online

DATE: Jan 20-23, 2021

Income	Unit cost (EUR)	Quantity	Sub-Total (EUR)	Remarks
Registration Fee (per person)	0	50	0	We will try to avoid having a registration fee
Exhibitor fee	200	0	0	If a suitable solution can be developed we hope to attract 5-10 exhibitors
IUVSTA funding	3,200	1	3,200	Support for setting up a software platform that will allow presentations, posters and mingling.
Total (EUR)			3,200	

Expenditures	Unit cost (EUR)	Quantity	Sub-Total (EUR)	Remarks
Website costs	200	1	200	Registration and hosting of a website
Technical support	1,500	1	1,500	Fredrik Löfgren
Miscellaneous	1,500	1	1,500	Potential cost for adjusting the conference platform
			0	
			0	
			0	
			0	
Total (EUR)			3,200	